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April 15, 2005

Sandia National Laboratories, New Mexico Mr. John Thayer PO Box 5800 Albuquerque, NM 87185-0946

Subject: Third party lightning protection system inspections at Sandia National Labs.

Dear Mr. Thayer,

This letter follows our March 31 conversation regarding UL's lightning protection inspection work at Sandia National Laboratories, and our inspections conducted on April 4th, 2005.

A previous agreement between Sandia National Laboratories and Underwriters Laboratories Inc. (regarding inspection of lightning protection systems, where dissimilar galvanic metals contact one another in an outdoor environment) has caused confusion with lightning protection installers.

Sandia National Laboratories specifies that new lightning protection system designs use only copper components and conductors. To this end, copper components are often placed in direct contact with dissimilar metals that, in the presence of an electrolytic couple, accelerate corrosion. After Sandia evaluated environmental conditions near Albuquerque, NM, they determined that anodic metals in contact with copper lightning protection components are unlikely to corrode quickly in the area's dry weather.

Unfortunately, existing regulations don't take these special circumstances into account. The Standard of Installation Requirements for Lightning Protection Systems (UL 96A) and The Standard for the Installation of Lightning Protection Systems (NFPA 780) both prohibit combinations of materials that form electrolytic couples that may corrode quickly in the presence of moisture. When this circumstance exists, UL cannot issue a Master Label Certificate or Letter of Findings, indicating compliance with UL96A or NFPA780.

However, UL recognizes that this condition is intentional and acceptable to Sandia National Laboratories, and has agreed previously to inspect these systems and report those results. Unfortunately, several of UL's existing Listed Lightning Protection Installers have misinterpreted our inspection reports as certification by UL. To clarify the

issue and to satisfy Sandia National Laboratories' requests for third party inspection, UL shall begin issuing inspection letter reports for each structure on Sandia National Laboratories' properties where the previously described condition exists.

Inspection Letter Reports shall clearly identify the date of inspection, structure name and address, standards employed, and that direct contact between dissimilar metals exists. The report will be issued to the party requesting inspection but will not be published in UL's web directory of certified structures.

Sandia often subcontracts lightning installation work to UL Listed installers. To facilitate special inspections at Sandia (where the only deviation from requirements involves direct contact of dissimilar metals) we will process each request according to our procedure for standard applications. The special inspection process will be transparent to UL Listed installers with the exception of resulting inspection letter reports.

Performance specifications for lightning protection systems should require that systems be designed in accordance with UL96A and/or NFPA 780, installed by UL Listed Lightning Protection Installers, and are verified by inspection by Underwriters Laboratories Inc. A Master Label Certificate will be issued for eligible systems. A Deviation Letter will be issued when appropriate and an Inspection Letter Report will be issued for situations described above.

We trust that this clarification of UL's previous agreement continues to satisfy the needs of Sandia National Labs. If you have questions relative to this agreement please contact the undersigned.

Kind regards,

Karl W. Keip, P.E.

Lightning Protection Program Manager

Underwriters Laboratories Inc.

Karl W. King

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